

TILEFISH TABLES

Table C1. Landings of tilefish in live metric tons from 1915-2004. Landings in 1915-1972 are from Freeman and Turner (1977), 1973-1989 are from the general canvas data, 1990-1993 are from the weighout system, 1994-2003 are from the dealer reported data, and 2004 is from dealer electronic reporting. - indicates missing data.

year	mt	year	mt
1915	148	1960	1,064
1916	4,501	1961	388
1917	1,338	1962	291
1918	157	1963	121
1919	92	1964	596
1920	5	1965	614
1921	523	1966	438
1922	525	1967	50
1923	623	1968	32
1924	682	1969	33
1925	461	1970	61
1926	904	1971	66
1927	1,264	1972	122
1928	1,076	1973	394
1929	2,096	1974	586
1930	1,858	1975	710
1931	1,206	1976	1,010
1932	961	1977	2,082
1933	688	1978	3,257
1934	-	1979	3,968
1935	1,204	1980	3,889
1936	-	1981	3,499
1937	1,101	1982	1,990
1938	533	1983	1,876
1939	402	1984	2,009
1940	269	1985	1,961
1941	-	1986	1,950
1942	62	1987	3,210
1943	8	1988	1,361
1944	22	1989	454
1945	40	1990	874
1946	129	1991	1,189
1947	191	1992	1,653
1948	465	1993	1,838
1949	582	1994	786
1950	1,089	1995	666
1951	1,031	1996	1,121
1952	964	1997	1,810
1953	1,439	1998	1,342
1954	1,582	1999	525
1955	1,629	2000	506
1956	707	2001	874
1957	252	2002	851
1958	672	2003	1,130
1959	380	2004	1,182

Table C2. Percent landings by statistical area. Landings before 1990 are taken from the general canvas data. Percent landings after 1993 are estimated from vessel trip reports.

year	unknown	626	622	616	537	526	525	other
1962	100%	0%	0%	0%	0%	0%	0%	0%
1963	65%	0%	0%	0%	4%	28%	0%	3%
1964	83%	0%	0%	0%	4%	14%	0%	0%
1965	83%	0%	0%	0%	1%	16%	0%	0%
1966	97%	0%	0%	0%	0%	1%	1%	0%
1967	96%	0%	0%	0%	0%	4%	0%	0%
1968	96%	0%	0%	0%	1%	0%	0%	3%
1969	93%	0%	0%	0%	2%	4%	0%	1%
1970	87%	0%	0%	0%	8%	5%	0%	0%
1971	99%	0%	0%	0%	0%	0%	0%	0%
1972	92%	0%	0%	1%	1%	0%	0%	6%
1973	0%	0%	0%	62%	16%	0%	0%	21%
1974	0%	0%	0%	51%	27%	0%	0%	22%
1975	0%	0%	0%	48%	34%	8%	0%	10%
1976	0%	0%	0%	58%	28%	13%	0%	1%
1977	1%	0%	0%	44%	32%	22%	0%	1%
1978	0%	0%	0%	29%	40%	31%	0%	0%
1979	0%	0%	0%	18%	37%	45%	0%	0%
1980	0%	0%	0%	22%	34%	44%	0%	0%
1981	0%	0%	0%	28%	37%	35%	0%	0%
1982	0%	0%	0%	19%	52%	27%	0%	2%
1983	0%	1%	0%	22%	54%	23%	0%	0%
1984	0%	1%	3%	9%	53%	34%	0%	1%
1985	0%	0%	2%	25%	33%	38%	2%	1%
1986	0%	0%	1%	28%	44%	25%	3%	1%
1987	0%	0%	0%	12%	53%	32%	1%	2%
1988	0%	1%	2%	21%	41%	32%	0%	2%
1989	0%	0%	1%	63%	9%	26%	1%	1%
1990	0%	2%	0%	15%	14%	36%	0%	33%
1991	0%	0%	1%	64%	25%	1%	0%	10%
1992	0%	0%	1%	22%	70%	5%	1%	1%
1993	0%	0%	2%	14%	72%	7%	3%	2%
1994	3%	0%	0%	10%	71%	0%	7%	9%
1995	1%	0%	0%	7%	90%	0%	1%	1%
1996	21%	0%	0%	27%	49%	0%	0%	3%
1997	23%	0%	0%	16%	57%	0%	0%	3%
1998	17%	0%	0%	9%	66%	1%	1%	7%
1999	3%	0%	0%	34%	55%	0%	0%	7%
2000	0%	0%	0%	41%	50%	2%	1%	6%
2001	0%	0%	0%	66%	26%	2%	0%	5%
2002	0%	0%	0%	50%	44%	0%	1%	5%
2003	1%	0%	0%	49%	39%	1%	1%	10%
2004	0%	0%	0%	21%	63%	1%	2%	14%

Table C 3. Landings of tilefish (mt, live) by gear. Number of length measurements are in parentheses. Landing before 1990 are from the general canvas data. Percent by gear per year are also given.

Year	Gear			Total	Percent by Gear		
	longline	trawl	other		longline	trawl	other
1962		167	2	169	0%	99%	1%
1963		121		121	0%	100%	0%
1964		596		596	0%	100%	0%
1965		614		614	0%	100%	0%
1966		437		437	0%	100%	0%
1967		51		51	0%	100%	0%
1968		30		30	0%	100%	0%
1969		30		30	0%	100%	0%
1970		57	1	58	0%	99%	1%
1971		62	1	62	0%	99%	1%
1972	93	26	2	121	77%	21%	2%
1973	370	24	1	394	94%	6%	0%
1974	531	33	22	586	91%	6%	4%
1975	588	111	11	710	83%	16%	2%
1976	950	58	1	1,010	94%	6%	0%
1977	1,772	309	1	2,082	85%	15%	0%
1978	2,938	309	10	3,257	90%	9%	0%
1979	3,362	449	156	3,968	85%	11%	4%
1980	3,794	94 (37)	0	3,889	98%	2%	0%
1981	3,366	(25)	128	3,499	96%	4%	0%
1982	1,935	49 (87)	6	1,990	97%	2%	0%
1983	1,857	(158)	8	1,876	99%	0%	1%
1984	2,003	(116)	6	2,009	100%	0%	0%
1985	1,929	(410)	31	1,961	98%	2%	0%
1986	1,874	(177)	76	1,950	96%	4%	0%
1987	3,029	(292)	180 (291)	3,210	94%	6%	0%
1988	1,319	(98)	42	1,361	97%	3%	0%
1989	421	33	0	454	93%	7%	0%
1990	852	22	0	874	97%	2%	0%
1991	1,164	25	0	1,189	98%	2%	0%
1992	1,497	(36)	155	1,653	91%	9%	0%
1993	1,597		241 (100)	1,838	87%	13%	0%
1994	764		22	786	97%	3%	0%
1995	617 (432)		47	666	93%	7%	0%
1996	1,009 (548)		111 (107)	1,121	90%	10%	0%
1997	1,699 (1,763)		80 (216)	1,810	94%	4%	2%
1998	1,179 (710)		142 (290)	1,342	88%	11%	2%
1999	466 (360)		29	525	89%	6%	6%
2000	451 (143)		45	506	89%	9%	2%
2001	811 (217)		62 (103)	874	93%	7%	0%
2002	757 (637)		84 (482)	851	89%	10%	1%
2003	987 (3,303)		131 (274)	1,130	87%	12%	1%
2004	507 (1,532)		191 (411)	1,182	43%	16%	41%

Table C4. Landings of tilefish (mt, live) by state. Number of length measurements are in parentheses. Landings before 1990 are from general canvas data. Percent by state per year are also given.

Year	ME	MA	RI	NY	NJ	other	Total	Percent by State					
								ME	MA	RI	NY	NJ	other
1962	0	28	31	57	42	12	169	0%	16%	18%	34%	25%	7%
1963	0	42	46	13	14	6	121	0%	35%	38%	10%	12%	5%
1964	0	102	424	37	30	2	596	0%	17%	71%	6%	5%	0%
1965	0	106	478	20	9	2	614	0%	17%	78%	3%	1%	0%
1966	0	13	366	55	3	2	437	0%	3%	84%	13%	1%	0%
1967	0	2	27	8	8	5	51	0%	4%	54%	16%	17%	9%
1968	0	1	23	3	3	0	30	0%	4%	76%	9%	11%	0%
1969	0	2	13	4	10	0	30	0%	7%	44%	15%	35%	0%
1970	0	8	36	3	10	1	58	0%	13%	62%	5%	17%	2%
1971	0	0	21	25	15	1	62	0%	1%	34%	40%	24%	2%
1972	0	2	3	6	111	0	121	0%	1%	2%	5%	92%	0%
1973	0	51	17	3	323	0	394	0%	13%	4%	1%	82%	0%
1974	0	163	21	22	380	0	586	0%	28%	4%	4%	65%	0%
1975	0	174	101	2	434	0	710	0%	24%	14%	0%	61%	0%
1976	0	212	56	23	718	0	1,010	0%	21%	6%	2%	71%	0%
1977	0	84	354	314	1,331	0	2,082	0%	4%	17%	15%	64%	0%
1978	0	95	292	969	1,900	0	3,257	0%	3%	9%	30%	58%	0%
1979	0	22	432	1,365	2,148	0	3,968	0%	1%	11%	34%	54%	0%
1980	0	1	87 (37)	1,451	2,348	2	3,889 (37)	0%	0%	2%	37%	60%	0%
1981	0	6	126	1,284 (25)	2,083	1	3,499	0%	0%	4%	37%	60%	0%
1982	6	5	42 (87)	643	1,288	6	1,990 (87)	0%	0%	2%	32%	65%	0%
1983	0	12	7	844 (158)	1,001	12	1,876	0%	1%	0%	45%	53%	1%
1984	0	1	5	1,094	898 (116)	11	2,009 (116)	0%	0%	0%	54%	45%	1%
1985	2	10	207 (247)	958	777 (163)	6	1,961 (410)	0%	0%	11%	49%	40%	0%
1986	3	1	183 (70)	1,076 (107)	687	1	1,950 (177)	0%	0%	9%	55%	35%	0%
1987	0	7	269 (380)	1,996	924 (203)	13	3,210 (583)	0%	0%	8%	62%	29%	0%
1988	0	33	100 (98)	868	353	6	1,361 (98)	0%	2%	7%	64%	26%	0%
1989	0	1	28	249	174	1	454	0%	0%	6%	55%	38%	0%
1990	7	7	19	606	232	3	874	1%	1%	2%	69%	27%	0%
1991	4	1	19	720	444	1	1,189	0%	0%	2%	61%	37%	0%
1992	8	3	146	963 (36)	530	3	1,653	0%	0%	9%	58%	32%	0%
1993	59	14	276 (100)	1,003	485	1	1,838 (100)	3%	1%	15%	55%	26%	0%
1994	25	3	51	580	127	0	786	3%	0%	6%	74%	16%	0%
1995	8	1	29	551 (432)	76	1	666 (432)	1%	0%	4%	83%	11%	0%
1996	6 (108)	0	88 (219)	914	106 (328)	6	1,121 (655)	1%	0%	8%	82%	9%	1%
1997	13 (244)	0	65 (422)	1,494 (159)	196 (1,154)	41	1,810 (1,979)	1%	0%	4%	83%	11%	2%
1998	15	4	251 (320)	890 (74)	155 (606)	27	1,342 (1,000)	1%	0%	19%	66%	12%	2%
1999	3	2	86 (212)	362	43 (159)	30	525 (371)	1%	0%	16%	69%	8%	6%
2000	7	0	62	415 (143)	16	5	506 (143)	1%	0%	12%	82%	3%	1%
2001	0	0	33 (103)	832 (217)	4	4	874 (320)	0%	0%	4%	95%	0%	0%
2002	4	9	72 (482)	722 (637)	32	11	851 (1,119)	0%	1%	8%	85%	4%	1%
2003	2 (343)	12	105 (167)	796 (1,862)	208 (1,205)	7	1,130 (3,577)	0%	1%	9%	70%	18%	1%
2004	0 (31)	117 (19)	136 (345)	601 (351)	318 (1,205)	10	1,182 (1,951)	0%	10%	12%	51%	27%	1%

Table C5. Landings of tilefish (mt, live) by quarter. Number of length measurements are in parentheses. General canvas data are not included. Percent by quarter per year are also given.

Year	Quarter				Total				
	1	2	3	4		1	2	3	4
1977	1,017	961	93	12	2,082	49%	46%	4%	1%
1978	905	1,128	432	793	3,257	28%	35%	13%	24%
1979	1,351	1,055	538	1,024	3,968	34%	27%	14%	26%
1980	1,524	1,263 (37)	505	596	3,889	39%	32%	13%	15%
1981	1,352	1,091	474	581 (25)	3,499	39%	31%	14%	17%
1982	1,028 (87)	433	239	289	1,990	52%	22%	12%	15%
1983	577 (119)	726	289 (39)	284	1,876	31%	39%	15%	15%
1984	1,032	491 (116)	293	193	2,009	51%	24%	15%	10%
1985	551 (340)	632 (70)	496	281	1,961	28%	32%	25%	14%
1986	542 (107)	597 (70)	437	374	1,950	28%	31%	22%	19%
1987	1,048 (481)	873	723 (102)	565	3,210	33%	27%	23%	18%
1988	737	292 (98)	160	172	1,361	54%	21%	12%	13%
1989	147	61	78	167	454	32%	13%	17%	37%
1990	258	243	184	189	874	29%	28%	21%	22%
1991	326	437	182	244	1,189	27%	37%	15%	21%
1992	424	434	401	394 (36)	1,653	26%	26%	24%	24%
1993	634 (100)	664	267	273	1,838	34%	36%	15%	15%
1994	301	275	73	138	786	38%	35%	9%	18%
1995	214 (432)	148	109	195	666	32%	22%	16%	29%
1996	366 (215)	215	231	308 (440)	1,121	33%	19%	21%	28%
1997	441 (808)	574 (906)	373 (80)	421 (185)	1,810	24%	32%	21%	23%
1998	539 (324)	362 (517)	229 (104)	212 (55)	1,342	40%	27%	17%	16%
1999	163 (150)	146 (10)	120 (102)	96 (109)	525	31%	28%	23%	18%
2000	143	141 (143)	77	144	506	28%	28%	15%	28%
2001	191	236	223	224 (320)	874	22%	27%	25%	26%
2002	287 (619)	195 (100)	181 (217)	188 (183)	851	34%	23%	21%	22%
2003	305 (480)	299 (407)	247 (1,641)	280 (1,049)	1,130	27%	26%	22%	25%
2004	504 (1,711)	272 (240)	182	223	1,182	43%	23%	15%	19%

Table C6. Total VTR trawl kept and discarded tilefish in live kg. Ratios of discarded to kept are also shown.

year	kept	discard	d/k ratio
1994	3,090	113	0.037
1995	14,637	98	0.007
1996	90,405	656	0.007
1997	75,321	260	0.003
1998	121,042	206	0.002
1999	31,501	74	0.002
2000	20,785	0	0.000
2001	51,055	538	0.011
2002	69,722	2,053	0.029
2003	135,058	13,024	0.096
2004	222,540	273	0.001

Table C7. Observer trawl trips which either kept and/or discarded tilefish in kgs. Discard to kept ratio, the number of trips and observed hauls are also shown.

year	discard kgs	kept kgs	d/k ratio	No. trips	No. hauls
1989	114	131	0.88	8	43
1990	9	85	0.11	4	11
1991	252	446	0.57	19	69
1992	182	855	0.21	22	84
1993	21	4,619	0.00	13	77
1994	14	119	0.11	7	23
1995	20	23	0.90	6	13
1996	56	1,515	0.04	11	53
1997	195	1,080	0.18	13	71
1998	45	518	0.09	11	92
1999	31	152	0.20	14	47
2000	116	112	1.04	8	25
2001	653	455	1.43	10	54
2002	5	58	0.08	3	6
2003	271	1,206	0.22	15	65
2004	250	1,592	0.16	30	160

Table C8. Total commercial and vessel trip report (VTR) landings in live mt and the commercial catch-per-unit effort (CPUE) data used for tilefish. Dealer landings before 1990 are from the general canvas data. CPUE data from 1979 to the first half of 1994 are from the NEFSC weighout database, while data in the second half of 1994 to 2004 are from the VTR system (below the dotted line). Effort data are limited to longline trips which targeted tilefish (= or >75% of the landings were tilefish) and where data existed for the days absent. Nominal CPUE series are calculated using landed weight per days absent minus one day steam time per trip. Da represents days absent.

year	Weighout & Dealer landings		Commerical CPUE data subset									
	vtr landings	interview landings	No. interviews	% interview trips	No. vessels	subset landings	days absent	No. trips	da per trip	nominal cpue		
1979	3,968		0.0	0	0.0%	20	1,807	1,187	330	3.6	1.93	
1980	3,889		0.8	1	0.3%	18	2,153	1,390	396	3.5	1.99	
1981	3,499		35.0	4	1.2%	21	1,971	1,262	333	3.8	1.95	
1982	1,990		90.7	13	5.7%	18	1,267	1,282	229	5.6	1.10	
1983	1,876		85.8	16	8.9%	21	1,013	1,451	179	8.1	0.73	
1984	2,009		140.1	25	18.2%	20	878	1,252	138	9.1	0.72	
1985	1,961		297.1	64	30.6%	25	933	1,671	209	8.0	0.59	
1986	1,950		120.7	31	16.5%	23	767	1,186	188	6.3	0.71	
1987	3,210		198.5	38	18.5%	30	1,014	1,343	206	6.5	0.82	
1988	1,361		148.2	30	19.4%	23	422	846	154	5.5	0.56	
1989	454		92.8	11	15.7%	11	165	399	70	5.7	0.46	
1990	874		32.4	8	11.9%	11	241	556	68	8.2	0.45	
1991	1,189		0.8	3	2.8%	7	444	961	107	9.0	0.48	
1992	1,653		58.0	9	8.6%	13	587	969	105	9.2	0.62	
1993	1,838		71.9	11	10.5%	10	571	959	105	9.1	0.61	
1994	-		0	0	0.0%	7	127	385	42	9.2	0.34	
1994	786	31				4	53	150	18	8.3	0.37	
1995	666	549				5	470	964	100	9.6	0.50	
1996	1,121	865				8	822	1,318	134	9.8	0.64	
1997	1,810	1,439				6	1,427	1,332	133	10.0	1.09	
1998	1,342	1,068				9	1,034	1,517	158	9.6	0.70	
1999	525	527				10	516	1,185	133	8.9	0.45	
2000	506	446				11	427	942	111	8.5	0.47	
2001	874	705				8	691	1,046	116	9.0	0.68	
2002	851	724				8	712	951	114	8.3	0.78	
2003	1,130	790				7	788	691	101	6.8	1.22	
2004	1,182	1,137				13	1,118	750	126	6.0	1.64	

Table C9. Dealer and VTR tilefish total landings (live metric tons) compared to the total landings from the five dominant tilefish vessels. Percent of five dominant vessels to the total are also shown. Difference between the dealer and VTR data are calculated.

year	Dealer total (live mt)	Dealer top 5 vessels	Dealer % landing of top 5 vessels to total	VTR total (live mt)	VTR top 5 vessels	VTR % landing of top 5 vessels to total	Dealer total minus vtr total	Dealer top 5 minus vtr top 5
1994	786	485	62%	31	17	57%	755	467
1995	666	522	78%	549	538	98%	117	-16
1996	1,121	803	72%	865	799	92%	256	4
1997	1,810	1,292	71%	1,439	1,416	98%	371	-123
1998	1,342	948	71%	1,068	1,003	94%	274	-55
1999	525	399	76%	527	486	92%	-2	-87
2000	506	459	91%	446	428	96%	60	31
2001	874	817	93%	705	684	97%	169	133
2002	851	722	85%	724	687	95%	127	35
2003	1,130	726	64%	790	732	93%	340	-6
2004	1,182	584	49%	1,137	622	55%	45	-38

Table C10. Landing by market category. Number of length measurements are in parentheses. Percent by market category redistributes the unclassified category by the proportion of the other categories.

year	large	medium	small	unclassified	total	Percent by market cat		
						lg	md	sm
1980	0	0	0	3,889 (37)	3,889	-	-	-
1981	0	0	0	3,499 (25)	3,499	-	-	-
1982	18	9	6	1,957 (87)	1,990	55%	28%	18%
1983	13 (119)	7 (39)	2	1,854	1,876	59%	31%	10%
1984	49	47	18	1,895 (116)	2,009	43%	41%	16%
1985	218	206 (247)	111	1,426 (163)	1,961	41%	38%	21%
1986	359 (49)	223 (58)	168	1,200	1,950	48%	30%	22%
1987	300	663 (393)	134	2,113 (190)	3,210	27%	60%	12%
1988	120	161 (98)	36	1,043	1,361	38%	51%	11%
1989	47	27	33	347	454	44%	25%	31%
1990	46	103	37	688	874	25%	55%	20%
1991	85	154	59	892	1,189	29%	52%	20%
1992	86	87	328	1,151 (36)	1,653	17%	17%	65%
1993	70	206 (100)	368	1,193	1,838	11%	32%	57%
1994	61	89	19	617	786	36%	53%	12%
1995	93	88 (208)	99 (244)	386	666	33%	31%	35%
1996	158 (136)	149 (100)	593 (419)	221	1,121	18%	17%	66%
1997	112 (95)	260 (688)	1,130 (1,174)	307 (22)	1,810	7%	17%	75%
1998	110 (101)	699 (407)	474 (473)	58 (19)	1,342	9%	54%	37%
1999	115	201 (155)	181 (211)	29 (5)	525	23%	40%	36%
2000	124	153 (79)	210 (64)	18	506	25%	31%	43%
2001	131 (25)	160 (100)	564 (195)	19	874	15%	19%	66%
2002	132	311 (130)	369 (989)	40	851	16%	38%	45%
2003	141 (498)	162 (1,354)	793 (1,725)	35	1,130	13%	15%	72%
2004	136 (106)	520 (870)	395 (932)	130 (43)	1,182	13%	49%	38%

Table C11. Trawl landing by market category. Number of trawl length measurements are in parentheses. Percent by market category redistributes the unclassified category by the proportion of the other categories.

year	large	medium	small	unclassified	total	Percent by market cat		
						lg	md	sm
1994	2	7	9	4	22	12%	38%	51%
1995	9	10	22	7	47	22%	24%	54%
1996	5	4	72 (107)	31	111	6%	4%	90%
1997	4	4	40 (216)	31	80	9%	9%	82%
1998	7	48	41 (271)	45 (19)	142	7%	50%	42%
1999	6	7	10	7	29	27%	30%	43%
2000	11	10	16	6	45	30%	27%	43%
2001	13	7	27 (103)	14	62	28%	15%	57%
2002	3	20	47 (482)	15	84	4%	28%	68%
2003	2	12 (100)	85 (174)	32	131	2%	12%	86%
2004	4	55 (95)	82 (316)	49 (43)	191	3%	39%	58%

Table C12. Recreational Golden tilefish data from the Marine Recreational Fishery Statistics Survey (MRFSS).

year	number fish measured	landed no. A and B1	Released B2	A and B1 kg
1982	0	984	0	98
1983	0	0	0	0
1984	0	0	0	0
1985	0	0	0	0
1986	0	0	0	0
1987	0	0	0	0
1988	0	0	0	0
1989	0	0	0	0
1990	0	0	0	0
1991	0	0	0	0
1992	0	0	0	0
1993	0	0	0	0
1994	0	608	0	0
1995	0	0	0	0
1996	0	10,167	0	0
1997	0	0	0	0
1998	0	0	0	0
1999	0	0	0	0
2000	0	0	0	0
2001	0	148	0	0
2002	0	20,068	1,338	0
2003	18	722	0	2,126
2004	3	90	0	206

Table C13. Number of tilefish reported in the Party/charter vessel trip reports.

year	ME	MD	NH	NJ	NY	NC	RI	VA	other	total
1994	275	0	636	0	0	0	0	0	0	911
1995	0	0	0	0	176	0	541	0	0	717
1996	0	0	0	0	81	0	0	0	0	81
1997	0	0	0	0	380	0	0	0	20	400
1998	0	0	0	0	121	52	102	0	20	295
1999	0	6	0	0	88	34	1	0	0	129
2000	0	0	0	39	108	139	0	0	0	286
2001	0	0	0	100	122	1,164	0	0	0	1,386
2002	0	0	0	383	425	0	0	0	0	808
2003	0	0	0	905	71	0	3	0	15	994
2004	0	0	0	225	0	0	0	27	12	264

Table C14. Comparison of 13 different ASPIC model runs for tilefish. Runs 1-2, 3-4, 5-6, and 7-8 split the weighout and VTR CPUE series. Runs 3-4, and 5-6 extend the landings time series in the past before the existence of CPUE data. Runs 7-8 uses the nominal weighout and VTR CPUE indices. Runs 9 through 11 reduced the increase in CPUE at the end of the VTR series to determine the sensitivity of recent increases in CPUE. Run 12 examines the effect of using a single CPUE series by combining Turner and the weighout/VTR CPUE series. Runs which combine indices use the weighout label to report the combined index r^2 and q. Run 13 fixed the B1/Bmsy ratio at 1 and was used as base run.

run Description	1	2	3	4	5	6	7	8	9	10	11	12	13	
					nominal		nominal		vtr cpue		vtr cpue		vtr cpue	
			CPUE		CPUE		no increase in last 3 years		no increase in last 2 years		decrease 2003 & 2004 CPUE		single CPUE Series	
Start year	1973	1973	1945	1945	1916	1916	1973	1973	1973	1973	1973	1973	1973	
Number of CPUE series	2	3	2	3	2	3	2	3	3	3	3	1	3	
r^2 (Turner)	0.39	0.55	0.48	0.53	0.50	0.53	0.55	0.57	0.60	0.57	0.58	-	0.18	
r^2 (Weighout)	0.73	0.72	0.73	0.72	0.72	0.71	0.68	0.68	0.70	0.72	0.71	0.87	0.70	
r^2 (VTR)	-	0.51	-	0.51	-	0.51	-	0.45	0.14	0.47	0.36	-	0.54	
B1/Bmsy	4.61	2.12	1.08	5.39	10.51	8.46	2.25	2.19	2.44	2.19	2.28	2.51	1.00	
MSY (live, mt)	1.87	1.83	1.94	1.84	1.92	1.84	1.87	1.75	1.56	1.76	1.69	2.14	1.99	
r	0.47	0.42	0.47	0.42	0.47	0.42	0.45	0.38	0.30	0.39	0.35	0.63	0.42	
K (mt)	15.87	17.39	16.30	17.42	16.51	17.44	16.82	18.40	20.54	18.17	19.12	13.67	18.77	
B _{m_{sy}} (live, mt)	7.93	8.69	8.15	8.71	8.26	8.72	8.41	9.20	10.27	9.09	9.56	6.84	9.38	
F _{m_{sy}} (live, mt)	0.24	0.21	0.24	0.21	0.23	0.21	0.22	0.19	0.15	0.19	0.18	0.31	0.21	
q (Turner's)	0.008	0.009	0.009	0.009	0.009	0.009	0.009	0.008	0.007	0.008	0.007	-	0.010	
q (Weighout)	0.235	0.217	0.241	0.218	0.235	0.184	0.162	0.139	0.160	0.200	0.183	0.31	0.225	
q (VTR)	-	0.379	-	0.384	-	0.382	-	0.157	0.307	0.344	0.329	-	0.392	
B(2005)/Bmsy	0.81	0.77	0.79	0.76	0.77	0.76	0.91	0.77	0.51	0.71	0.63	0.82	0.715	
F(2004)/F _{m_{sy}}	0.82	0.87	0.81	0.87	0.83	0.87	0.73	0.91	1.57	1.03	1.21	0.73	0.870	